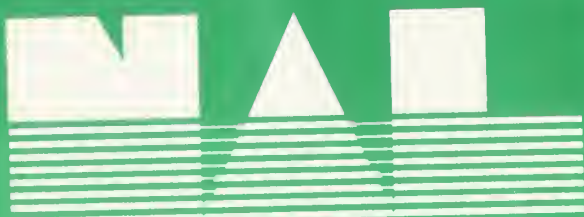


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UNITED STATES STANDARDS

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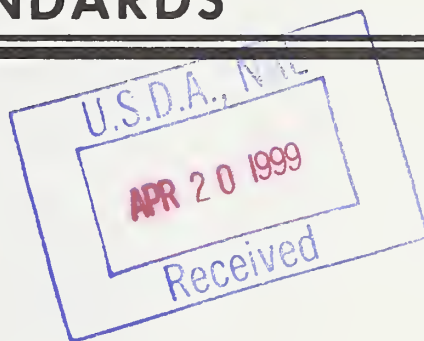
TOMATO CATSUP

Fourth Issue

EFFECTIVE AUGUST 31, 1953

UNITED STATES DEPARTMENT OF AGRICULTURE
AGRICULTURAL MARKETING SERVICE
FRUIT AND VEGETABLE DIVISION
PROCESSED PRODUCTS STANDARDIZATION AND INSPECTION BRANCH

These standards supersede the standards which have been in effect since
April 15, 1941



This is the fourth issue of the United States Standards for Grades of Tomato Catsup. These standards are issued by the Department after careful consideration of all data and views submitted.

These standards were published in the Federal Register of July 30, 1953 (18 F.R. 4443) and recodified in the Federal Register of December 9, 1953 (18 F.R. 8069). Section 52.2111 was amended (22 F.R. 3535) to become effective July 1, 1957.

As in the case of other standards for processed fruits and vegetables, these standards are designed to serve as a convenient basis for sales, for establishing quality control programs, and for determining loan values. They will also serve as a basis for the inspection of this commodity by Federal inspection service, which is available for the inspection of other processed products as well.

The Department welcomes suggestions which might aid in improving these standards in future revisions. Comments may be submitted to, and copies of these standards obtained from:

Chief, Processed Products Standardization
and Inspection Branch
Fruit and Vegetable Division
Agricultural Marketing Service
United States Department of Agriculture
Washington 25, D. C.

Reprinted January, 1960

UNITED STATES STANDARDS FOR GRADES OF TOMATO CATSUP ¹

Effective August 31, 1953

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IDENTITY AND GRADES

§ 52.2101 *Identity.* Tomato catsup means the product as defined in the standard of identity for catsup, ketchup, catchup (21 CFR 53.10) issued pursuant to the Federal Food, Drug, and Cosmetic Act.

§ 52.2102 *Grades of tomato catsup.*
(a) "U. S. Grade A" or "U. S. Fancy" is the quality of tomato catsup that

possesses a good color; that possesses a good consistency; that is practically free from defects; that possesses a good flavor; that possesses a good finish; that has a total solids content of not less than 33 percent, by weight; and that scores not less than 85 points when scored in accordance with the scoring system outlined in this subpart.

(b) "U. S. Grade B" or "U. S. Extra Standard" is the quality of tomato catsup that possesses a good color; that possesses a good consistency; that is practically free from defects; that possesses a good flavor; that possesses a good finish; that has a total solids content of not less than 29 percent, by weight; and that scores not less than 85 points when scored in accordance with the scoring system outlined in this subpart: *Provided*, That the tomato catsup may score not less than 18 points for the factor of consistency if the total score is not less than 85 points.

(c) "U. S. Grade C" or "U. S. Standard" is the quality of tomato catsup that possesses a fairly good color; that possesses a fairly good consistency; that is fairly free from defects; that possesses a good finish; that possesses a fairly good flavor; that has a total solids content of not less than 25 percent, by weight; and that scores not less than 70 points when scored in accordance with the scoring system outlined in this subpart.

(d) "Substandard" is the quality of tomato catsup that fails to meet the requirements of U. S. Grade C or U. S. Standard.

¹The requirements of these standards shall not excuse failure to comply with the provisions of the Federal Food, Drug, and Cosmetic Act.

FILL OF CONTAINER

§ 52.2103 *Recommended fill of container for tomato catsup.* The recommended fill of container is not incorporated in the grades of the finished product since fill of container, as such, is not a factor of quality for the purposes of these grades. It is recommended that each container of tomato catsup be filled as full as practicable without impairment of quality and that the product occupy not less than 90 percent of the capacity of the container.

FACTORS OF QUALITY

§ 52.2104 *Ascertaining the grade.* (a) The grade of tomato catsup is ascertained by considering in conjunction with the requirements of the respective grade, the respective ratings for the factors of color, consistency, absence of defects, and flavor. The relative importance of each factor which is scored is expressed numerically on the scale of 100. The maximum number of points that may be given such factors are:

Factors:	Points
Color	25
Consistency	25
Absence of defects.....	25
Flavor	25
Total score.....	100

§ 52.2105 *Ascertaining the rating for the factors which are scored.* The essential variations within each factor which is scored are so described that the value may be ascertained for each factor and expressed numerically. The numerical range within each factor which is scored is inclusive for example, 17 to 20 points means 17, 18, 19 or 20 points).

§ 52.2106 *Color*—(a) *General.* The amount of red in the tomato catsup is determined by comparing the color of the product with that produced by spinning a combination of the following Munsell color discs:

- Disc 1—Red (5R 2.6/13) (glossy finish).
- Disc 2—Yellow (2.5YR 5/12) (glossy finish).
- Disc 3—Black (N1) (glossy finish).
- Disc 4—Gray (N4) (mat finish).

(b) (A) and (B) classification. To-

mato catsup that possesses a good color may be given a score of 21 to 25 points. "Good color" means that the color is typical of tomato catsup made from well ripened red tomatoes and which has been properly prepared and properly processed. Such color contains as much or more red than that produced by spinning the specified Munsell color discs in the following combinations: 65 percent of the area of Disc 1; 21 percent of the area of Disc 2; 14 percent of the area of either Disc 3 or Disc 4, or 7 percent of the area of Disc 3 and 7 percent of the area of Disc 4 whichever most nearly matches the reflectance of the tomato catsup. To receive a score in this classification, tomato catsup, when packed in glass, shall show no discoloration in the "neck" of the bottle.

(c) (C) classification. If the tomato catsup possesses a fairly good color, a score of 17 to 20 points may be given. Tomato catsup that falls into this classification shall not be graded above U. S. Grade C or U. S. Standard, regardless of the total score for the product (this is a limiting rule). "Fairly good color" means that the color is typical of tomato catsup and contains as much or more red than that produced by spinning the specified Munsell color discs in the following combinations: 53 percent of the area of Disc 1; 28 percent of the area of Disc 2; 19 percent of the area of either Disc 3 or Disc 4, or 9½ percent of the area of Disc 3 and 9½ percent of the area of Disc 4 whichever most nearly matches the reflectance of the tomato catsup.

(d) (SStd) classification. Tomato catsup that fails to meet the requirements of paragraph (c) of this section may be given a score of 0 to 16 points and shall not be graded above Substandard, regardless of the total score for the product (this is a limiting rule).

§ 52.2107 *Consistency*—(a) *General.* The factor of consistency refers to the viscosity of the product and the tendency to hold its liquid portion in suspension.

(b) (A) and (B) classification. Tomato catsup that possesses a good consistency may be given a score of 22 to

25 points. "Good consistency" means that the tomato catsup shows not more than a slight separation of free liquid when poured on a flat grading tray; is not excessively stiff; and flows not more than 9 centimeters in 30 seconds at 20 degrees Centigrade in the Bostwick consistometer.

(c) (C) *classification*. If the tomato catsup possesses a fairly good consistency, a score of 18 to 21 points may be given. Tomato catsup that falls into this classification shall not be graded above U. S. Grade B or U. S. Extra Standard, regardless of the total score for the product (this is a limiting rule). "Fairly good consistency" means that the tomato catsup may show a noticeable, but not excessive, separation of free liquid when poured on a flat grading tray; is not excessively stiff; and flows not more than 14 centimeters in 30 seconds at 20 degrees Centigrade in the Bostwick consistometer.

(d) (SStd) *classification*. Tomato catsup that fails to meet the requirements of paragraph (c) of this section may be given a score of 0 to 17 points and shall not be graded above Substandard, regardless of the total score for the product (this is a limiting rule).

§ 52.2108 *Absence of defects*—(a) *General*. The factor of absence of defects refers to the degree of freedom from defects such as: dark specks or scale-like particles, seeds, particles of seed, tomato peel, core material, or other similar substances. This factor is evaluated by observing a layer of the product on a smooth white, flat surface. Such layer is prepared by drawing a scraper with a clearance of 3/32 inch high by 7 inches long rapidly through the product in two horizontal planes so as to form an approximate square.

(b) (A) and (B) *classification*. Tomato catsup that is practically free from defects may be given a score of 21 to 25 points. "Practically free from defects" means that any defects present do not more than slightly affect the appearance or eating quality of the product.

(c) (C) *classification*. If the tomato catsup is fairly free from defects, a score

of 18 to 20 points may be given. Tomato catsup that falls into this classification shall not be scored above U. S. Grade C or U. S. Standard, regardless of the total score for the product (this is a limiting rule). "Fairly free from defects" means that any defects present may be noticeable but are not so large, so numerous, or of such contrasting color as to seriously affect the appearance or eating quality of the product.

(d) (SStd) *classification*. Tomato catsup that fails to meet the requirements of paragraph (c) of this section may be given a score of 0 to 17 points and shall not be graded above Substandard, regardless of the total score for the product (this is a limiting rule).

§ 52.2109 *Flavor*—(a) (A) and (B) *classification*. Tomato catsup that possesses a good flavor may be given a score of 21 to 25 points. "Good flavor" means a good, distinct flavor characteristic of good quality ingredients. Such flavor is free from scorching or any objectionable flavor of any kind.

(b) (C) *classification*. If the tomato catsup possesses only a fairly good flavor, a score of 17 to 20 points may be given. Tomato catsup that falls into this classification shall not be graded above U. S. Grade C or U. S. Standard, regardless of the total score for the product (this is a limiting rule). "Fairly good flavor" means a flavor characteristic of the ingredients in which there may be slight traces of undesirable flavor such as scorched, bitter, or astringent, but is free from objectionable or off flavor of any kind.

(c) (SStd) *classification*. Tomato catsup that fails to meet the requirements of paragraph (b) of this section may be given a score of 0 to 16 points and shall not be graded above Substandard, regardless of the total score for the product (this is a limiting rule).

DEFINITIONS

§ 52.2110 *Definitions of terms used in these standards*. (a) "Total solids" in tomato catsup for the purposes of these standards is the refractometric sucrose value of the filtrate determined in ac-

cordance with the International Scale of Refractive Indices of Sucrose Solutions to which value is added 1 percent.

(b) "Good finish" means that the product has a uniform, smooth texture.

LOT INSPECTION AND CERTIFICATION

§ 52.2111 *Ascertaining the grade of a lot.* The grade of a lot of tomato catsup covered by these standards is determined by the procedures set forth in the Regulations Governing Inspection and Certification of Processed Fruits and Vegetables, Processed Products Thereof, and Certain Other Processed Food Products (§§ 52.1 to 52.87; 22 F. R. 3535).

SCORE SHEET

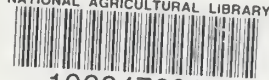
§ 52.2112 *Score sheet for tomato catsup.*

Type of container.....	
Container size.....	
Container mark.....	
Label.....	
Net weight or volume.....	
Total solids.....	
Vacuum readings.....	
Factors	Score point:
Color.....	25 { (A-B) 21-25 (C) 17-20 (SStd.) 10-16
Consistency.....	25 { (A-B) 22-25 (C) 18-21 (SStd.) 10-17
Absence of defects.....	25 { (A-B) 21-25 (C) 18-20 (SStd.) 10-17
Flavor.....	25 { (A-B) 21-25 (C) 17-20 (SStd.) 10-16
Total score.....	100
Normal flavor and odor.....	
Grade.....	

¹ Indicates limiting rule

Recodified in the Federal Register of December 9, 1953 (18 F.R. 8069)
Section 52.2111 amended May 22, 1957 (22 F.R. 3535)

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